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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/336,207 06/18/99 MCCracken

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R 8594560/9702

EXAMINER

HORTON, Y

ART UNIT

PAPER NUMBER

3635

DATE MAILED:

11/08/00

PM82/1108
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DAVIS BROWN KOEHN SHORS & ROBERTS P C
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DES MOINES IA 50309-3993

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/336,207

Applicant(s)
ROBERT G. McCRACKEN

Examiner
YVONNE M. HORTON

Group Art Unit
3635



☒ Responsive to communication(s) filed on Sep 1, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-11 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-11 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on Jun 18, 1999 is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Election/Restriction

1. In the Office action dated 09/01/00, the examiner erroneously indicated that claims 1 and 11 were generic. She has since realized that neither claims 1 or 11 are generic. Claims 1 and 11 are; however, generic to the elected species of Figures 12a,b. Claims 1 and 11 are not generic to the species of Figure 3 because the claims require an end plate, and there is no end plate in the species of Figure 3. All of the claims 1-11 are readable on the species elected.
2. Applicant's election of the species shown in Figures 12 a,b in Paper No. 5 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Drawings

3. The drawings are objected to because one of the drawing figures are not labeled. Correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent #5,956,919 to McCracken in view of U.S. Patent #4,915,345 to Lehmann. McCracken discloses a beam (10) including a pair of longitudinally extending and opposing flanges (12,14) each having a central web section (20), a pair of inwardly extending leg sections (22,24); and a convoluted web member (16) having alternating protrusions (18a,b) adjacent to leg sections (22,24). The web member (16) is secured to the central web section (20) of the flanges (12,14), and the protrusions (18a,b) are secured to the leg sections (22,24). McCracken discloses the basic claimed beam except for the use of end plates. Lehmann teaches that it is known in the art to provide a beam structure (10) with end plates (13). It would have been obvious to one having ordinary skill in the art to provide the beam member of McCracken with the end plate of Lehmann in order to enable adjacent beam structures to be secured together and to provide the beam structure with added stiffness adjacent the end thereof. Without end plates, the beam is weaker at the ends thereof and are more likely to give under force at the ends. In reference to claim 2, the inward legs of McCracken are not recessed; however, it would have been obvious to one having ordinary skill in the art to recess the leg members in order to ensure that the end

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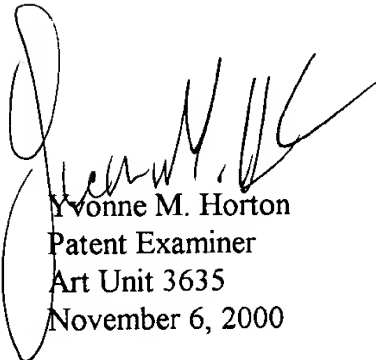
plate fits flush thereagainst. Recesses and tapers are old and very well known in the art when accommodating a sure fit with adjacent or interfitting members. Regarding claim 3, the size of the recess with respect to the end plate is an obvious matter of design choice which depend upon how flush the end plate is needed to fit with the flange members. In reference to claims 4 and 5 the web member (20) and the flanges (12,14) of McCRACKEN are coextensive in length and are made from sheet metal, column 3, line 44. In regards to claims 6 and 7, McCRACKEN, in column 3, lines 25-29, discloses that the metal forming the web and the metal forming the flanges have "distinct" characteristics and thicknesses. With reference to claims 8 and 9, the web member (16) is secured to the central web section (20) of the flanges (12,14) by welds, and the protrusions (18a,b) are also secured to the leg sections (22,24) by welds, column 3, lines 2-9. Regarding claim 10, the flanges are formed from sheet material, a material that inherently enables the flange members to be penetrated if desired or needed.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent #5,956,919 to McCRACKEN in view of U.S. Patent #4,915,345 to LEHMANN. McCRACKEN discloses a pair of opposing C-shaped flanges (12,14) each having a central web section (20) with a pair of opposing leg sections (22,24) and in-turned portions (26,28); and an upright web (16) having one or more convoluted sections of alternating protrusions (18a,b). The web member (16) is secured to the central web section (20) of the flanges (12,14), and the protrusions (18a,b) are secured to the leg sections (22,24). McCRACKEN discloses the basic claimed beam except for the use of end plates. LEHMANN teaches that it is known in the art to provide a beam structure (10) with end plates (13). It would have been obvious to one having ordinary skill in the

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art to provide the beam member of McCracken with the end plate of Lehmann in order to enable adjacent beam structures to be secured together and to provide the beam structure with added stiffness adjacent the end thereof. Without end plates, the beam is weaker at the ends thereof and are more likely to give under force at the ends. The inward legs of McCracken are not recessed; however, it would have been obvious to one having ordinary skill in the art to recess the leg members in order to ensure that the end plate fits flush thereagainst. Recesses and tapers are old and very well known in the art when accommodating a sure fit with adjacent or interfitting members. The size of the recess with respect to the end plate is an obvious matter of design choice which depends upon how flush the end plate is needed to fit with the flange members.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvonne M. Horton whose telephone number is (703) 308-1909.



Yvonne M. Horton
Patent Examiner
Art Unit 3635
November 6, 2000